

Office of the Vice President  
Development Economics  
The World Bank  
August 1988  
WPS 41

*Background Paper for the 1988 World Development Report*

# Urban Property Taxation in Developing Countries

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The property tax can be an efficient, equitable means of financing municipal services in developing countries, but in most countries it needs reform.

The property tax is the most widely used source of municipal tax revenue in the developing world, but its current yield is often insubstantial.

Poor policy often sets tax rates too low, offers excessive exemptions, and fails to adequately respond to inflation. Poor administration results in incomplete tax rolls, haphazard valuations, and low collection efficiency.

To increase the yield and improve the fairness of the tax, both the policy and administrative problems must be addressed. Tax reform too often consists of a one-time general revaluation or rate increase. Taken alone, neither has a sustained impact on the property tax's performance.

Tax policy must ensure that rates are set high enough to make the tax worth collecting. Where significant inflation exists, a policy of annual adjustments in rates or valuations should be instituted.

Administrative reforms should support simple procedures for property discovery and valuation, suited to the characteristics of the local tax base and the skills to the taxing authority. Procedures for updating property records to reflect changes in the tax base deserve particular attention. Collection systems should be designed to make compliance convenient; and noncompliance subject to costly, swift, and sure penalties.

Central governments can achieve reform on a nationwide scale — even where the property tax is locally administered — by delivering standardized packages of training and technical assistance to local governments.

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## URBAN PROPERTY TAX REFORM IN DEVELOPING COUNTRIES

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## ACKNOWLEDGEMENTS

This paper draws on earlier work on urban property taxation in developing countries by Roy Bahl and Johannes Linn. Comments and suggestions on previous drafts of the report were provided by R. Bird, B. Balassa, G. Ingram, P. Ljung, R. Buckley, R. Silveira, and H. Garzon, and are gratefully acknowledged. Any errors remain the responsibility of the author.

## URBAN PROPERTY TAX REFORM IN DEVELOPING COUNTRIES

### I. INTRODUCTION

The property tax is the most widely used municipal revenue source in the developing world. In almost all LDC's with large urban populations, some form of property tax is assigned to the support of local governments.<sup>1/</sup> Confronting continued rapid urban growth, local authorities are under pressure to, at minimum, maintain a constant level of property tax revenues in real per capita terms. Efforts to increase expenditures on municipal services frequently look to the property tax as a promising source of additional revenue. This has often proven difficult to achieve. Misguided policy and poor administration constrain the yields of the urban property tax in many LDC's.

This paper has two objectives. The first is to assess the policy arguments for the use of property taxes as a municipal revenue source. The second is to review the revenue performance of property taxation and define practical ways to improve it.

For purposes of this paper, the property tax is defined as a recurrent tax on real property (land and/or improvements) in urban areas. As such, the property tax is only one of several forms of real-property-related taxation. Others include taxes on property

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<sup>1/</sup> Among the 50 largest LDC metropolitan areas, only those in Iraq, Viet Nam, and China (which is presently considering a property tax) do not receive revenues from an urban property tax. Property taxes also contribute to the support of central governments in some smaller LDC's.

transactions and inheritance, and taxes on rural real property. The latter forms of taxation are generally assigned to central or provincial governments and constitute a small part of their revenues. The urban property tax, in contrast, is normally assigned to local governments, and constitutes a relatively large proportion of their resources.

A. The Role of Urban Property Taxation in LDCs

The extent to which local governments rely on property taxation varies among countries. Measured as a percent of local tax revenues, property taxes' contribution (measured at the level of national aggregates) varies from eight percent in Pakistan to 99 percent in Kenya. As a general rule, property taxes can, nevertheless, be said to constitute a plurality, if not a majority, of the municipal tax revenues in most LDC's. As shown in Table 1, property taxes constitute 40 to 50 percent of aggregate municipal tax revenues in four of the most populous LDC's--India, Brazil, Indonesia, and Mexico. Although greater variation exists at the level of individual cities, the extent of property tax reliance in major metropolitan cities generally falls within the range of 30 to 80 percent.

Measured as a percentage of total municipal recurrent revenues, property taxes' contribution is much smaller. The share of total municipal revenues contributed by property taxation is less than 25 percent in nine of the eleven countries shown in Table 1, and is less than ten percent in four of them. Similar proportions are exhibited in the case of individual cities.

**Table 1: EXTENT OF MUNICIPAL RELIANCE ON PROPERTY TAXATION**

Country/ City	Property Taxes as % of:		Country/ City	Property Taxes as % of:	
	Taxes	Total Revenues		Taxes	Total Revenues
INDIA	40%	24%	BRAZIL	40%	8%
Bombay	22%	17%	Sao Paulo	38%	16%
Calcutta	92%	36%	Rio de Janeiro	31%	12%
Madras	82%	41%			
INDONESIA	43%	12%	COLOMBIA	46%	6%
Jakarta	10%	5%	Bogota	32%	18%
KOREA	27%	19%	MEXICO	55%	12%
Seoul	21%	18%	Mexico (DF)	59%	6%
PAKISTAN	8%	6%	PERU	NA	NA
Karachi	13%	12%	Lima	57%	17%
Lahore	13%	12%	TUNISIA	28%	9%
PHILIPPINES	70%	20%	Tunis	NA	14%
Manila	59%	36%	NIGERIA	NA	NA
			Lagos	70%	22%
			Ibadan	13%	3%
			KENYA	99%	36%
			Nairobi	92%	36%
			<u>Median</u>		
			COUNTRIES	42%	12%
			Cities	35%	17%

The property tax's relatively small role in the financing of municipal services is partly explained by the central government policies concerning the structure of local government finance. Central governments' tax assignment policies reduce the need for heavy reliance on property taxation. Where central governments assign a second, broad-based tax instrument to local authorities, the property tax's share of

total tax revenue is relatively small. Thus property taxes' small contribution to municipal tax revenues in Brazil reflects the availability of a municipal services tax. In Colombia, a municipal tax on industry and commerce plays this role; in Pakistan, an octroi<sup>2/</sup> does so. Within India, Bombay's low reliance on property taxation reflects the availability of an octroi; Calcutta's and Madras' heavy reliance on property taxation reflects the absence of a supplementary tax instrument in their respective states.

Similarly, the availability of non-tax revenue sources reduces the need for strong property tax effort. Intergovernmental recurrent transfers constitute the largest source of municipal revenues in Indonesia, the Philippines, and all the Latin American countries shown in Table 1, far exceeding the contribution of property taxation. In Kenya, local reliance on fees and user charges reduces the contribution of property taxation to total revenues.

In many LDC's, central governments also directly limit the yields of property taxes by placing limits on assessment ratios and maximum tax rates, mandating generous exemption policies, and delaying or cancelling general revaluations. In the Philippines, for example, the combined effect of central government limitations on assessment ratios and tax rates and centrally decreed postponements of a general revaluation is an effective tax on urban land of roughly 0.2 percent.

Political vulnerability is also a significant constraint on property tax yields. In practice, the property tax suffers from a

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<sup>2/</sup> The octroi is a form of import tax, imposed on goods entering the municipality.



degree of political resistance that is disproportionate to its absolute yields. This is due to two characteristics of the tax:

Large number of statutory taxpayers. The tax bases that support central government typically involve relatively small numbers of taxpayers. Personal income taxes, in developing countries, generally reach only the small proportion of the labor force engaged in relatively high paying formal sector activity. The various forms of indirect taxes--on imports, domestic manufacturing, and wholesale distribution--directly affect only the firms engaged in these activities.<sup>3/</sup> The statutory base of property taxation in contrast, consists of all owners (and in some cases, all occupants) of property. The political consequences of an increase in property taxes are more widely felt than an increase in central taxes.

"Non-objective" basis of assessment. Unlike income or sales taxes, property tax calculations are not based on actual accounting flows, but rather on estimates of stock value (or an equally presumptive estimate of rental income). The procedures used to derive these estimates are perceived by taxpayers as arbitrary and unrelated to ability to pay. This is particularly true during periods of rapid inflation and recession, when property values may rise more rapidly than incomes. Government efforts to adjust valuations for inflation are perceived as increasing the tax burden unjustly. The consequences of

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<sup>3/</sup> While part of the incidence of indirect taxes is ultimately shifted forward onto consumers at large, this incidence is disguised in the form of higher prices and is not generally perceived by taxpayers.

this attitude are illustrated in Table 2. As shown, real declines in property tax revenues were characteristic of all the countries experiencing recession and moderate to high inflation in the early 1980's. Significant growth in real terms was characteristic only of countries with low to moderate inflation and growing economies.

The combined effect of central revenue assignment policies, and the political vulnerability of property taxation is a often a situation characterized by low absolute levels of property taxation, haphazard tax administration, and persistent efforts by local authorities to increase the transfer of resources from higher levels of government.

#### B. The Economic Case for Property Taxation

As a device for financing the recurrent cost of municipal services, the merits of the property tax are controversial. Conventional analysis concludes that a tax on urban land is neutral in its impact on resource allocation, and probably progressive in its incidence. A tax on buildings, however, is believed to be distortionary in its impact on resource allocation, and (under some conditions) regressive in its incidence.

The conventional framework may overstate the impact of an urban property tax, however. To the extent that service benefits are correlated with property values, the tax's adverse allocative and distributional effects may be mitigated.

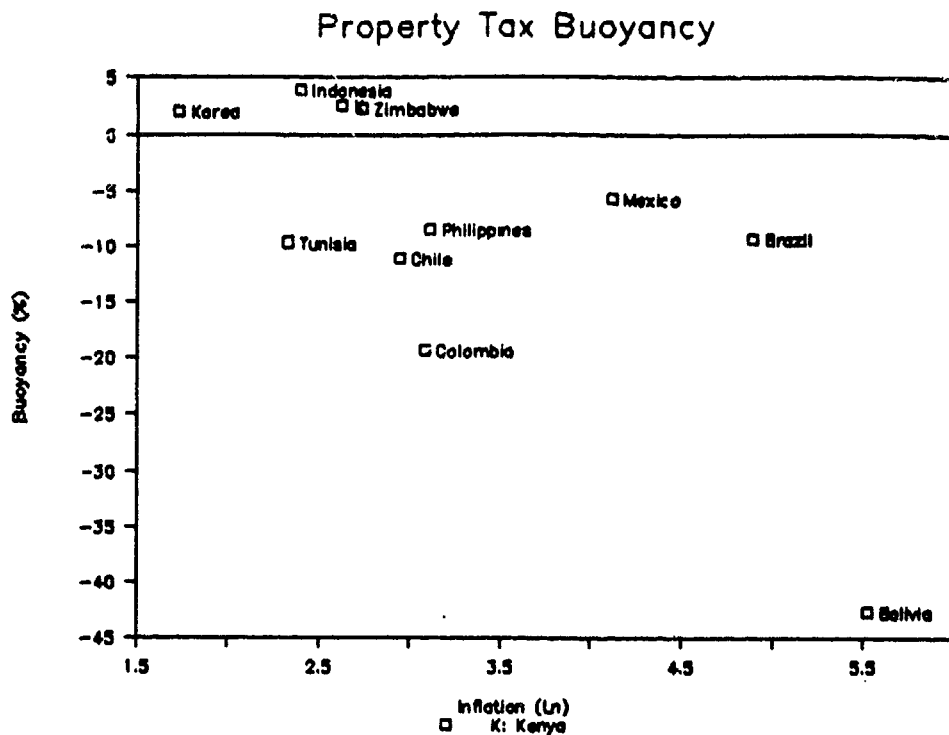
1. Impacts on Efficiency and Equity: Conventional View

To determine the allocative and distributional impact of a given tax, it is necessary first to assess the statutory taxpayers' response to its introduction, and how much of its incidence is ultimately passed on to other groups in the economy: owners of land and capital, renters, consumers, and labor. The extent and pattern of their response determines the impact of the tax on the efficiency of resource allocation. The position each of these groups in the country's income distribution determines the tax's distributional impact.

Table 2: THE IMPACT OF INFLATION AND RECESSION ON PROPERTY TAX REVENUES

Country	Time Period	<u>Average Annual Percentage Change In:</u>				
		<u>Revenue (nominal)</u>	<u>CPI</u>	<u>Revenue (real)</u>	<u>GDP (real)</u>	<u>Buoyancy</u>
Indonesia	80 - 84	22%	11%	10%	6%	4%
Korea	81 - 83	16%	6%	10%	8%	2%
Philippines	81 - 85	9%	22%	-11%	-3%	-8%
Bolivia	80 - 84	110%	252%	-40%	4%	-43%
Brazil	80 - 84	114%	133%	-8%	1%	-9%
Chile	80 - 84	2%	19%	-14%	-3%	-11%
Colombia	80 - 84	1%	22%	-17%	3%	-19%
Mexico	80 - 84	52%	61%	-6%	0%	-6%
Tunisia	81 - 84	3%	10%	-6%	4%	-10%
Kenya	81 - 84	15%	14%	1%	-2%	3%
Zimbabwe	80 - 83	24%	15%	7%	5%	2%

\* Percentage change in revenues, deflated by percentage change in nominal GDP



Traditional analysis assumes that, prior to imposition of the tax, all factors are allocated in the most efficient possible pattern. Imposition of the tax interferes with this allocation by changing relative prices and rates of return.<sup>4/</sup> The goal of tax policy, under this framework, is to interfere with the allocation of resources as little as possible; to finance the public sector using neutral instruments which elicit the smallest possible avoidance response.

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<sup>4/</sup> Taxation also distorts resource allocation through its impact on sector incomes. The reduction in income resulting from the shift in resources from the private to the public sector changes the pattern of aggregate demand, further removing the allocation of resource from its pre-tax position.

In the short term, the statutory and economic incidence of introducing or increasing<sup>5/</sup> the property tax are identical. Because owners of land and buildings cannot immediately reduce their supply, a tax on land and buildings cannot be shifted forward (unless permitted by law or contract). Thus in the short term, an increase in the property tax has no impact on resource allocation. If owners of land and buildings are assumed to be disproportionately represented in higher income groups, the short term distributional impact of the property tax is progressive.

In the long term, the supply of buildings can be reduced. Owners of buildings can respond to a tax increase by curtailing investment in new structures, rehabilitation, and maintenance. The resulting shrinkage in supply of buildings may cause prices to rise, shifting part of the burden of the tax onto users of these structures (e.g., households and businesses).

As long as the tax increase is confined to a small number of jurisdictions, the response of building-owners would enable them to avoid much of the long term incidence of the tax. Building-owners would be expected to shift capital that would otherwise be invested in buildings into other forms of investment. This disinvestment in the taxed cities would continue until the rate of return on new construction in the taxed cities equalled the return on alternative investments. As long as the capital stock in the taxed cities was relatively small, the

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<sup>5/</sup> Because most countries already have a property tax in place, this discussion assesses the impact of an increase in the property tax level (with a corresponding increase in public expenditure).

rate of return to capital in the country as a whole would be unaffected by the imposition of the tax. Owners of buildings in the taxed city would thus be able to reallocate their resources with no loss in rate of return.

If the tax increase were nationwide in scope, the distribution of its incidence would be more complex. A large scale reallocation of capital from taxable structures to other forms of investment would reduce the rate of return to capital in the country as a whole. This would shift part of the incidence of the tax onto owners of capital in all forms, throughout the country.<sup>6/</sup>

In the long term, a tax on buildings is therefore not neutral with respect to the allocation of resources. Over time, it will induce a reallocation of resources from taxable structures to other forms of capital investment. In its distributional impact, a single-city tax on buildings may be regressive, if the elasticity of expenditure on housing with respect to income is assumed to be less than one. If the tax increase is of national scale, this may be partly offset by the

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<sup>6/</sup> Not all of this incidence will necessarily be borne by owners of capital, however. The reduction in rates of return to capital may prompt producers to substitute labor for capital; reducing the marginal product of labor, resulting in a drop in wages. The burden of an increase in property taxes of national significance may therefore be shared among owners of land, and labor and owners of capital in the country, as a whole.

This argument assumes that the supply of capital is fixed in the country as a whole. Citing the importance of international capital flows in smaller developing countries, Bahl and Linn argue that capital may flow out of a country in response to a lowered rate of return. An increase in property taxation of nationwide significance could therefore prompt an outflow of capital, reducing, inter alia, investment in housing and shifting part of the burden onto renters throughout the country.

absorption of part of the tax burden by owners of capital, who may be assumed to be disproportionately represented in higher income brackets.

This discussion applies only to the portion of the property tax that falls on buildings. Conventional analysis holds that the incidence of the land portion of the property tax cannot be shifted. Unlike buildings, land is fixed in supply. Given a fixed supply of land (and no change in users' estimation of its value) the price that landowners can charge for its use will be unaffected by the tax. Landowners will therefore be forced to bear the full incidence of the tax themselves. Landowners could not escape the tax by selling their property, as market prices would decline to reflect future property tax liabilities.

The land portion of the property tax is, therefore, neutral with respect to the allocation of resources. Imposing the tax will not, according to conventional assumptions, induce a reallocation of resources to other forms of investment. In terms of its distributional impact, the land component of the property tax is presumably progressive, if landowners are assumed to be disproportionately represented in higher income brackets.

## 2. The Influence of Tax-Financed Benefits

Conventional analysis probably overstates the allocative and distributional impacts of the property tax. Because the property tax is a local tax, the benefits of the services it finances remain within the taxing jurisdiction. These benefits will influence the response of property owners to the imposition of the tax.

An increase in the property tax on rented housing, for example, may be used to finance an increase in services to their occupants. Increased services would, in turn, increase the willingness of tenants to pay higher rents. By increasing rents, building-owners would be able to partially restore their rates of return to the levels prevailing before the imposition of the tax. Building-owners would thus have less inducement to shift their capital to other forms of investment; and the impact of the tax on the allocation of resources would be diminished.

The benefits of tax-financed services would be reflected in the sales price of property. Prices would rise to reflect the expected benefits of future tax-financed services. This capitalization of benefits could offset the capitalization of tax liabilities into property values. The land portion of the property tax may therefore not have the progressive incidence suggested by conventional analysis. Landowners may be no worse off after the imposition of the tax than before it.

The extent to which tax-financed services diminish the allocative and distributional impacts of the property tax depends upon how closely tax-costs and service-benefits are correlated at the level of individual properties. If benefits, as perceived by the market, exactly equal liabilities, the property tax (both on land and improvements) would be neutral with respect to the allocation of resources, and would have no "incidence" to impose on various income groups.



The likelihood of a perfect correspondence between costs and benefits is, however, remote. Even if the overall level of services in a given locality is satisfactory to its taxpayers, the use of the property tax to finance these services will confer net benefits on some property owners and net costs on others. The statutory burden of the property tax is, by definition, distributed according to the value of property. The benefits of tax-financed services are not. The benefits of municipal road maintenance or refuse collection are, for example, more closely proportional to household size (reflecting the number of beneficiaries) than to property value. Only such services as fire protection and protection against vandalism could be considered to confer benefits roughly proportional to property values.

This does not argue against the use of property taxes to finance the costs of municipal services. As discussed below, service benefits are more closely correlated with property values than with most other tax bases.<sup>7/</sup> It does, however, argue for adopting valuation methods that reflect variations in the benefits provided to different properties. Such methods are already used in some developing countries. Brazilian municipalities, for example, impose a variety of property tax surcharges for solid waste management, street maintenance and similar services. These surcharges are imposed only in neighborhoods where these services are actually provided.

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<sup>7/</sup> This is particularly true of the national tax bases that fund intergovernmental transfers. Such transfers can unintentionally shift the cost of financing services to taxpayers in an entirely different jurisdiction.

### 3. Conclusion: Comparison to the Alternatives

Judged on efficiency and equity criteria, the property tax appears to be an acceptable means to finance municipal services. The conventional view finds the land component of the property tax to be allocatively neutral and probably progressive. While it finds the capital component of the tax distortionary (and probably regressive) these qualities are diminished, to the extent that service benefits are correlated with property values.

The property tax ranks particularly well when compared to the alternatives. In theory, the recurrent costs of municipal services could be financed through a variety of user charges, taxes, or intergovernmental transfers. Among these instruments, user charges would rank highest on efficiency grounds, as they can serve as a pricing mechanism for efficiently rationing individual consumption of municipal services. The scope for user charges is limited however. The "public goods" nature of most municipal services requires they be consumed collectively.

Most forms of intergovernmental transfers would rank below the property tax on efficiency grounds. Transfers typically entail extensive subsidies between the taxpayers of different jurisdictions: the taxpayers of some jurisdictions pay more in central taxes than their local governments receive in transfers; other taxpayers pay less and while their local governments receive more. These implicit subsidies distort the allocation of resources between the production of municipal

services and all other production.<sup>8/</sup> Such subsidies are difficult to eliminate, even where governments wish to do so. In LDC's, central governments rely heavily on indirect forms of taxation. While the statutory origin of such taxes can be identified, the location of their economic incidence cannot. Transfer formulas are therefore unable to remove interjurisdictional subsidies by "returning" central taxes to their true origin.

The property tax does not necessarily rank first on efficiency grounds when compared to other taxes. Under conventional incidence assumptions, most forms of payroll and personal income taxation would rank equally well, and flat "head" taxes would rank higher. Retail sales taxes would also rank well, provided consumers confined their purchasing to their jurisdiction of residence.<sup>9/</sup>

In practice, these alternatives are not always administratively or politically attractive. Head taxes are not cost effective under most LDC conditions. Personal income taxes reach too small a proportion of the population to provide a sufficiently broad tax

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<sup>8/</sup> Bahl and Linn (Ref. 1) argue that some forms of intergovernmental transfers can improve the efficiency of resource allocation, by correcting the "prices" faced by municipal authorities. Where a local government's expenditures on a particular service yield benefits to other jurisdictions, it will (from a nation-wide standpoint) underallocate resources to that service unless its expenditures on the service are subsidized. This specific instance does not diminish the validity of the general conclusion referred to in the text.

<sup>9/</sup> Otherwise the tax would result in the same cross-jurisdictional subsidies as intergovernmental transfers funded from indirect taxes.

base in smaller towns. Both personal income and retail sales taxes pose problems of tax competition with higher levels of government.<sup>10/</sup>

In contrast, the urban property tax is--at least potentially--cost effective; its base is sufficiently distributed geographically to provide even small towns with a source of revenues; and it poses no direct competition with the tax bases preferred by higher levels of government.

## II. PROPERTY TAX REFORM: TARGETS FOR INTERVENTION

Efforts to improve the performance of urban property taxes have two targets for intervention: policy and administration. Policy decisions--low tax rates, broad exemptions, infrequent adjustments for inflation--reduce the statutory level of the property tax. Poor administration--incomplete tax rolls, haphazard valuations, low collection efficiency--reduce the proportion of the statutory base that is effectively taxed, and introduce arbitrariness into the tax's incidence.

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<sup>10/</sup> This is not an insuperable problem, at least in developed countries. In Japan and most of Western Europe (excluding the U.K.), income and local sales taxes--not property taxes--are the primary source of local government tax revenue.

Reform effort must address both targets. While policy actions offer the prospect of quick revenue increases, taken alone they exaggerate the inequities in the tax's incidence. A rise in the tax rate, for example, places the burden of the increase on those few individuals whose properties are on the rolls and are accurately valued, and from whom taxes are actually collected.

Improvements in administration offer the prospect of increasing yields by improving equity. Improvements in the comprehensiveness of tax rolls, the objectivity of valuations, and the efficiency of collections increase revenues by increasing the burden on those who presently underpay. Taken alone, however, such administrative improvements may not be worthwhile. If tax rates remain low, the absolute level of property taxes may be trivial. Under these conditions, the property tax, although equitably administered, may not produce enough revenue to be worth collecting.

#### A. Property Tax Policy

Many governments in developing countries attempt to use the property tax to achieve objectives other than the generation of revenue. Some of these objectives are allocative: encouraging intensive development of urban land, encouraging home-ownership, or attracting new industry. Some are distributional: attempting to shift the burden of taxation onto higher income groups in their capacity as property owners or businessmen, and to shift the burden off the poor.

The policy tools used to achieve these objectives are three: the definition of the tax base; the rate structure, and the structure of

exemptions. As discussed below, the use of these tools to achieve non-revenue objectives is, in general, not good practice. They are generally not effective, and can be costly in terms of foregone revenue.

# 1. Defining the Base

## Land or Land and Improvements

The base of the recurrent urban property tax can be defined in one of two basic ways. (i) unimproved site value; where only land is taxed, and (ii) improved site value, where both land and improvements are taxed. The base of the unimproved site value definition generally includes both vacant land and land that is built upon. The difference between the two systems is therefore only whether improvements are included in the base.<sup>11/</sup>

The case for taxing only land rests largely on allocative considerations. Because land is inelastic in supply (under orthodox assumptions), imposing a tax on land does not interfere with the allocation of resources. A tax on improvements, in contrast, would lead in the long run to a reallocation of capital to untaxed sectors and locations. Allocative neutrality can thus only be achieved by confining the property tax base to land.

If (as argued earlier) the benefits of a property tax offset their costs, the efficiency argument against taxing improvements no longer holds. To the extent the owners of capital suffer no net

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<sup>11/</sup> Other variants exist but are relatively rare. Some countries (notably in Africa) tax only improved property (land and improvements), exempting vacant land.

reduction in their rate of return as a result of the imposition of the tax, no reallocation of capital will occur, and the tax will induce no distortion in the allocation of resources. The economic case against taxing improvements is thus not decisive.

In practice, site valuation is used in only a small number of countries. Its declining popularity is due not to the economic arguments, but to the perception of inequities on ability-to-pay grounds. Where major office buildings, hotels, and industrial plants dominate the landscape, the temptation to "tax" these structures has proven politically irresistible.

#### Defining the Numeraire: Capital or Rental Value

Under a land-and-improvement base, property value can be denominated in two ways; as annual rental value (ARV) or as capital or market value. Because capital value is merely the present value of the discounted stream of expected returns from a property, there would be little difference in the allocative and distributional effects of the two alternatives in a static economy.

In a growing economy, the impact of the two alternatives would differ. Because capital value reflects expected future returns, it captures market expectations of future rent increases and (through its land component) future changes in land use. The prospects for such changes will vary between neighborhoods and properties. The capital value definition will reflect these variations, placing a larger portion of the statutory burden of the tax on properties where increasing

returns are anticipated. The annual rental value definition, reflecting only the current returns on property, will not make this distinction.

It is unlikely that this difference in impact would be apparent in a comparison of actual experience under the two systems. In practice, values under both ARV and capital value systems borrow freely from the techniques of the opposite camp. Elasticities and land use impacts depend far more on the peculiarities of administration than on characteristics inherent in either system. In choosing between capital value or ARV, the overriding consideration is administrative convenience. As discussed in Section II.B., the definition that is used should be the one which exploits the best market data. If rental tenure is widespread and accurate rental data is readily available, ARV should be used. If owner-occupancy is common, and accurate data on sales prices are readily available, capital value should be used. In practice, neither definition is going to completely meet the test of "accurate data, readily available." Rent controls, though not necessarily obeyed in the market, distort the rental prices reported to officials of government. High capital gains taxes, similarly, result in inaccurate sales data reported to official sources.

## 2. Rate Structure and Exemption Policies

### Progressive Rate Structures

Many countries employ progressive rate structures or assessment ratios in fixing tax liabilities. Their objective is to increase the progressivity of the property tax. They do so, but imperfectly. In most progressive structure countries, the rate is



supposed to be applied against the aggregate value of all property owned by the taxpayer. In this way, a taxpayer could not avoid a high progressive rate by maintaining his real estate holdings in the form of many small low-value properties. This aggregation of property has proven to be easily evaded, by registering properties under various family member names. Thus progressivity is limited to the extent that higher income groups own more valuable individual properties than lower income groups. (Property valuation is, in any case, a poor indicator of wealth, as it is based on gross property value, rather than net equity, and ignores wealth held in forms other than real estate.)

The principal impact of progressive rate structures is to create pressure for undervaluation at the margin of each tax bracket. Under the typical progressive slab-system, properties just over the boundary of a given slab bear a much higher liability than those just below it. The pressure resulting from these disparities can be reduced by defining the rate structure as a linear equation. While this reduces pressures for undervaluation, it does not strengthen the economic argument for progressive tax rates.

#### Exemptions for Small Properties

Property tax systems also often exempt low value property, in an effort to improve progressivity. Here again, the actual distribution impact is questionable. Where small slum dwellings are owned by major landlords (and tenancy contracts do not permit pass-through of taxes),

the small property exemption may be only a benefit to individuals holding wealth in this form.

An argument for exempting small properties is also made on administrative cost grounds. Taxes on low value property are said to cost more to administer than they can yield in revenue. This is less true than it would appear. Where property taxes are administered on the basis of a comprehensive fiscal cadastres, all properties, regardless of value, must be mapped, assigned an identification code, and valued sufficiently well to identify those qualifying for exemption. Exempting low value property thus only spares the costs of billing and collection.

Where small, low value properties constitute a large proportion of the real property assets in a city, tax administrators would be better advised to adopt extremely simple valuation methods for typical units, thus bringing them into the tax system at the lowest possible cost.

#### Preferential Assessment Ratios for Home Ownership

Many countries permit preferential rates, or assessment ratios, to owner occupied residential property. The rationale for preferential treatment is either to encourage home-ownership, or on ability-to-pay grounds (the latter case reflecting the belief that because owner-occupied property does not generate rental income, owner-occupants are less able to pay recurrent property taxes). The merits of encouraging home ownership aside, it is unlikely that differentials have much impact on tenure decisions. This preferential treatment does, however, represent a subsidy to middle and upper income groups, which account for the bulk of owner occupants in LDC's.

The ability-to-pay agreement is reminiscent of ongoing controversy in developed countries. There, rapidly rising urban land values have boosted assessments on older homes, occupied by retired persons on limited income. While increasingly "wealthy" on paper, these persons generally lack the current income to meet rising property taxes. It is unlikely that such a condition exists to any significant extent in LDCs; however, and even if so, a blanket exemption to all owner-occupants is an expensive means of addressing this problem.

#### Taxation of Industrial and Commercial Properties

Property tax policy gives exceptional treatment to industrial and commercial properties in two ways; either taxing it more heavily than residential property (through higher assessment ratios or tax rates); or by taxing it less heavily, through tax holidays and concessional rates.

The former practice is more common, and appears to be based on equity grounds; i.e., that owners of business have greater ability to pay than owners of residential property. The economic consequences of the tax vary according to the characteristics of the business. In the case of producers of tradeable goods which dominate the national market, much of the incidence of the property tax will be shifted forward onto consumers in other jurisdictions. If the business produces tradeables which do not dominate the national market, it will be borne in the short term by owners; but may have wider repercussions in the long run. If it produces non-tradeables, the incidence will be shared between owners and local consumers. Because of the potential for shifting the incidence of the tax is difficult to predict, but clearly could deviate

from the assumed by policy makers, the degree of shifting, particularly across jurisdictions, also suggests potential serious distortions in resource allocation.

Reductions in tax burdens for commercial and industrial property are generally made at the behest of central governments, as part of sectoral promotion strategies; or by a local government, to attract new industry. To achieve these objectives, property taxes must constitute a significant part of the affected industry's costs, and the tax break must be significant and sustained. In most cases it is neither. Business tax breaks are therefore ineffective in meeting their allocative objectives, but potentially very costly in terms of foregone revenue.

#### B. Property Tax Administration and Institutional Arrangements

The performance and fairness of property taxation depend, to a great extent, on how well it is administered. The property tax is difficult to administer cost effectively. It involves a large number of individual taxpaying units, each yielding a relatively small amount of revenue.

The job is particularly difficult in LDCs. Due to rapid urban growth (and often high inflation) the tax base is constantly changing. Skill levels in the taxing authority are generally low. In addition, the sources of information used to facilitate property tax administration in developed countries are less useful in LDCs. Records of property transactions, title information, and building permits often omit large segments of the urban property market.

The key to successful administration is to adopt the system to its environment: to the characteristics of the tax base, the skill level available, and the sources of readily accessible data. In general, this implies simple and somewhat arbitrary procedures, and little reliance on interagency information sharing.

# 1. Developing Appropriate Administrative Procedures

## Discovery and Identification

The administration of property taxes is based on system of property records, termed the fiscal cadastre. Each record in the cadastre contains, for a specific property, (i) an identifying number, permitting the record to be linked to a parcel on the ground; (ii) the data to be used in determining the property's value; and (iii) the data used for billing (generally consisting of an owner or occupant's name and address). The yield of the property tax depends to a great extent upon the completeness of the cadastre (in terms of having a record for every parcel) and the accuracy of information contained on each record.

Historically, many countries have relied on owner declarations to compile their fiscal cadastre. Legislation would require all property owners to supply the government with a list of properties owned, their location, and the characteristics of each property to be used in determining their value. This approach worked poorly, however. Owners would submit incomplete lists (laying claim only to properties where ownership was disputed) and consistently under reporting the characteristics to be used in calculating value. Most

governments now resort to assembling their own fiscal cadastre, by making periodic field inventories.

The "orthodox" method of conducting such an inventory begins with preparation of a base map of the taxing jurisdiction, followed by a field survey to determine and delineate the boundaries of each parcel. Detailed maps showing parcel boundaries are then prepared and each parcel is assigned an identification code. Data to be used in valuations is obtained during the field survey and incorporated onto the property record. Billing data is obtained from a title or deeds registry which fixes legal ownership.

The standards of surveying and adjudication that would be used in industrialized countries are inappropriate to most developing countries, however. Many have cheaper and simpler approaches which work reasonably well. Accurate parcel boundary demarcation, for example, is not essential for property identification purposes. Some LDC cities dispense with mapping altogether, simply preparing a list of taxable properties identified by street address or (where street addresses are not adequate) painting tax identification numbers directly on each building. Where maps are used, no attempt is made to determine precise legal boundaries; the authorities simply demarcate boundaries sufficiently to distinguish one property from another.

Similar compromises are made in determining liability. The use of title or deed records to identify ownership is impractical in LDC cities. Ownership is disputed on a large proportion of properties. Where not disputed, deed or title records are in such a state as to make retrieval impractical. LDC tax authorities therefore forego any attempt to verify legal title, and instead adopt what is called an "owner of

record" approach. Here, the local authority makes an informal determination of ownership in the course of its field survey. Compliance is encouraged by legislation which relieves the local authority of any obligation to prove legal ownership prior to imposing the tax (by specifying that the property itself is liable or by allowing the taxing authority itself to designate a presumptive owner).

### Valuation

The purpose of valuation for tax purposes is to provide the basis for distributing the burden of property taxes. It is important to distinguish this objective from the objectives of valuation where the government intends to purchase a private property outright. In the latter case, precision is critical, and the valuation method should attempt to produce an accurate estimate of the current market value. In valuing property for tax purposes, only a measure of relative value at a common point in time is needed. Tax valuation can therefore use highly simplified valuation methods. What is essential in a tax valuation system is that it be objective, so as to produce legally defensible valuations, and that the methodology be appropriate to the skill levels of the local authority, and market information available in the local jurisdiction.

Value for tax purposes is generally denominated in one of two ways: as annual rental value or as capital (or sales), value. The definition used in a specific country generally reflects its colonial history: much of Africa and South Asia define value on the basis of rent; Latin America and East Asia define value on the basis of sales or market value.

As practiced in developing countries, annual rental valuation (ARV) is the simpler of the two methods. ARV relies, wherever possible, on direct market evidence. To value rental property, the valuer merely requests rental data from the occupant. The valuer may be authorized to demand written confirmation (in the form of a rent receipt) and may have the power to reject questionable receipts and make a valuation based on his own knowledge of the market. But in general, where direct market evidence exists, the valuer uses it.

This rental valuation method, while simple, is vulnerable to abuse. Valuations are not derived from observable characteristics of the property, but rather from statements or written evidence provided by the occupant. This provides opportunities for collusion between landlord and tenant to produce false rent receipts, or collusion between tenants and valuers to undervalue the property itself.

Owner-occupied properties, obviously, produce no rent receipts. ARV countries use a variety of alternative methods to value owner-occupied property. Most often, valuers are simply instructed to estimate values based on comparable rentals. This process is as vulnerable to abuse as valuations based on direct market evidence.

Capital valuation, in contrast to ARV, is of necessity based on objective, measurable property characteristics. As only a small percentage of properties are actually sold in a given valuation period, the option of using direct market evidence as a basis for valuing individual properties does not exist. The valuer must instead devise a system for extrapolating from the few transactions that do occur to calculate a hypothetical sales value for each property. The first step



in the process is to assemble and analyze the available market data.<sup>12/</sup> The valuation office begins by obtaining data on recent land sales, including (at the minimum) the value of the transaction, the location of the property, and the square footage involved. By grouping the sales according to their location within the city, this provides the basis for calculating the value of square foot of land in each neighborhood.

The value of improvements can be estimated either on the basis of recent sales, or based on depreciated replacement cost. The latter approach is more common. Here, unit costs for improvements are determined, first, by defining typical building types in the city. Valuation staff then prepare estimates of the construction cost of a typical building of each class, based on information obtained from local construction firms and building materials suppliers. Taking the total construction cost, and dividing it by the square footage assumed for each class of property yields an estimate of the unit cost (per square foot) for each type of building. Further elaboration of the building cost table would be required to take into account variations in the age and condition of buildings to be valued.

The process yields a table showing the value per square foot of land in various neighborhood, and the value of per square foot of improvements of various types and conditions. Individual property valuations are then calculated by obtaining data on the physical

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<sup>12/</sup> The method described here is termed "mass appraisal." It is used to value common classes of property, on which an active market exists. To value unusual properties (such as large factories) valuers will make more detailed appraisal of individual parcel, and may base their valuation on discounted income or depreciated replacement cost methods.

characteristics of each property to be valued, and applying these unit costs to them.

This approach, while objective, is not simple. Extrapolating from market evidence to produce unit cost tables, in particular, requires a higher degree of technical sophistication than is available in most local governments.

Is one definition of value inherently better than another? Not necessarily. What is important is not how value is denominated, but rather whether the methodology used to derive it is sound. The preponderance of evidence from LDCs suggests that methodologies relying on physical characteristics are more suitable to LDC conditions than those based on direct market evidence. Such systems, however, require technical support to the agency responsible for preparing unit cost tables.

In choosing to source of data to be used in calculating unit cost tables, the overriding consideration should be the quality of market data. As discussed earlier, where rental tenure is common, or high taxes on property transactions cause property sales data to be understated, rental data may be the more reliable source. Where owner occupancy is common, or where rent controls have driven the rental market underground, sales and construction cost data may be more reliable. The source of market data will then determine whether value, for tax purposes, is denominated as ARV or capital value.

#### Cadastral Maintenance

The fiscal cadastre, once complete, provides an estimate of the value of all taxable properties at a given point in time. To

capture the growth in the tax base, a ongoing system of cadastral maintenance is required.

Maintenance of the fiscal cadastre is needed to capture two principle types of changes. First are changes in property characteristics. New parcels come into existence, through subdivision or annexation. Ownership changes, new buildings are constructed or existing ones improve. In order to maintain comprehensive tax coverage, these changes must be incorporated in the fiscal cadastre on an ongoing basis. In principle, most of these changes could be flagged by other agencies of government. The agency responsible for subdivision approval could notify the tax authority when new parcels are created; the registrar of deeds could notify it of changes in ownership; the building permits agency could flag new construction. Many LDC property tax codes call for this form of information pooling. As a maintenance technique, it is not notably successful. Many such changes occur outside the formal system: land is subdivided illegally, construction is undertaken without permits. Even where formal procedures are followed, the agencies concerned attach a low priority to furnishing this information to the tax authorities. Successful maintenance is instead a matter of maintaining a permanent staff whose responsibility is to monitor changes in property characteristics by ongoing visual inspection.

The second category of maintenance involves changes in price. In principle, changes in prices need not concern the valuation office. Where inflation increases the cost of providing local services, the office can merely increase the tax rate to generate additional revenues. As long as relative property values remain unchanged, the burden of the property tax would continue to be distributed equitably. Some countries, notably the U.K., follow this approach. Over time this

results in extremely high nominal tax rates. (In England, the tax rate is based on prices of 1972, and exceeds 200 percent in most jurisdictions.)

Countries have found it more politically expedient to instead increase valuations and hold nominal tax rates more or less constant. The traditional approach to increasing valuations entails a physical reinspection of each property, generally at fixed intervals of five years. This approach is not appropriate for countries with significant inflation, however. Five year intervals between revaluations would result in four years of declining real revenues, followed by extremely abrupt (and politically hazardous) increases in nominal valuations in the fifth year. More frequent general revaluations would be unacceptably costly, however. Countries affected by inflation have evolved a more cost effective means of adjusting values. Rather than physically reinspecting all properties, the valuation authorities adjust valuations according to a price index. In Brazil, for example, municipal governments are authorized to adjust property valuations up to the level of the inflation index for government bonds, without physically reinspecting properties. In Colombia, values may be automatically increased by 50-90 percent of the increase in the consumer price index in the preceeding year.<sup>13/</sup> Some local governments in the U.S. automatically adjust land values based on year-to-year comparisons of the average sales price of vacant land in their jurisdictions, and adjust building valuations using regional construction cost indexes.

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<sup>13/</sup> In principle, this adjustment is to be based on the results of a special property market survey carried out by the national statistical agency.

General revaluations, involving physical inspection of all taxable properties must be undertaken at periodic intervals. Physical inspection is needed to flag minor changes in property characteristics (such as building deterioration, or minor improvements), not discovered in the course of regular cadastral maintenance. A recalculation of unit costs is needed to flag changes in the relative price of land in different locations. Failure to periodically reinspect will eventually produce intolerable inequities in the distribution of property tax burden. Such changes are gradual, however, and permit general revaluations to be scheduled at fairly long intervals.

#### Billing and Collection

The production of revenue ultimately depends on effective system of billing and collection. This aspect of property tax administration is often overlooked in favor of reforms in the discovery and valuation system. Such "upstream" improvements do not necessarily produce increased revenues unless complementary improvements in the billing and collection system are made.

The objective of a billing system is to fulfill the taxing authority's legal obligation to notify the taxpayer of his liability. Success depends as much on the legal definition of liability as it does on the mechanics of producing and delivering the bill. As discussed earlier, the legal definition of liability should relieve the taxing authority of any obligation to prove legal ownership. Instead, it should permit the taxing authority to impose non-compliance penalties against the property itself or against the property's presumptive owner. Provided the penalties are enforced, whoever is in beneficial occupation of the property should be induced to comply.

Where these legal definitions are used, the mechanics of billing consist either of posting the list of assessments in a public place (a common practice in small towns) or attaching a bill to the physical premises of each property (without concern for whether the bill has been received by an owner).

Collection improvement is complicated, as it involves a mix of administrative, legal, and political constraints. As a general rule, successful collection depends on making compliance convenient, and non-compliance subject to swift, certain, and costly penalties.

Collection can be made more convenient by decentralizing it. Many LDC local governments still require property tax payments to be made in person at city hall. This entails long travel and lengthy waiting. Collection can instead be decentralized to neighborhood collection points (as now done in Calcutta, India) or to branches of commercial banks (as in Karachi, Pakistan). Collection can also be made more convenient by permitting tax payments to be made in quarterly or semi-annual installments.

Penalties can be made more certain by improving the system for recording payment. In many municipalities, tax payments are simply recorded on individual taxpayer records, and filed. Given the thousands of property records in a medium sized city, this system makes it difficult to identify and track major delinquents. In the Philippines, the government proposes to address this problem by encouraging local governments to create a specific delinquent accounts unit. The unit would identify major delinquent accounts and monitor the execution of the sequence of administrative and legal enforcement measures provided for by law.

Penalties for delinquency need to be severe enough to induce compliance. The most widely used penalties are not. Most taxing authorities impose a one-time penalty for late payment followed by an interest charge applied as long as the bill is outstanding. These interest charges are often lower than the rate paid on savings in commercial banks, however. Taxpayers thus have an incentive to bank their tax liability, and delay payment for as long as possible.

Most countries have more serious penalties on the books, but rarely use them. Nearly all countries legally authorize the taxing authority to seize and sell delinquent property for non-payment of taxes. This penalty, if enforced, would certainly be effective, as property values usually exceed the value of outstanding tax liabilities. The auctioning penalty is rarely used. Often cases never reach the auction stage because they are tied up in legal disputes. In West Bengal, for example, a spurious challenge to a property valuation is sufficient to forestall auction proceedings for seven years. In Anambra State, Nigeria, cases have been dismissed for lack of judges to try the cases. West Bengal has recently addressed this problem by requiring taxpayers to pay the amount in dispute prior to filing suit, subject to refunding if the taxpayer's case is vindicated. This discourages spurious suits, and gives the local government the use of the money in the mean time. In Anambra, legal proceedings were hastened by shifting their venue from the formal magistrate courts to the customary courts.

## 2. Improving Institutional Arrangements

Although municipal governments are the ultimate recipients of urban property tax revenues, various stages of property taxation are often assigned to higher levels of government. Property tax reform efforts in LDC's often look to reassignments of institutional responsibilities as vehicles for improving the tax's performance.

### Existing Institutional Arrangements

Existing institutional arrangements for property taxation can be grouped into four categories, as illustrated in Table 3.

Completely decentralized. Here, all three of the major stages of property taxation--discovery and valuation, policy setting, and billing and collection--are the responsibility of local government. This pattern prevails in the U.S. and Japan. It is rare among developing countries, occurring only in Brazil and in Ibadan, Nigeria, among the locations supplying data.<sup>14/</sup>

Completely centralized. In this model, the three stages are assigned to central government, which then transfers the revenues collected to the local level. France employs this approach, as do Indonesia and Senegal. Pakistan and Mexico, using a variant of this arrangement, assign the three stages to intermediate levels of

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<sup>14/</sup> In theory, it is also found in India, the Philippines, and some large cities of Kenya. In practice, central government controls over tax policy render local autonomy over this aspect of property taxation meaningless. These cases are therefore included in the "central policy, local administration" group.



governments (provinces and states, respectively) which then transfer the proceeds of the tax to local governments.

**Table 3: INSTITUTIONAL ARRANGEMENTS FOR PROPERTY TAXATION**

<u>Institutional Arrangement</u>	<u>Industrial Country Examples</u>	<u>Developing Country Examples</u>
Completely decentralized	U.S., Japan	Brazil; Ibadan, Nigeria
Completely centralized	France	Indonesia, Senegal <sup>/a</sup> , Pakistan <sup>/a</sup> , Mexico <sup>/a</sup>
Central policy, local administration		Korea, Philippines, India, Colombia <sup>/b</sup> , Kenya <sup>/b</sup>
Divided administration -central valuation, local collection	U.K., W. Germany	Colombia <sup>/c</sup> , Kenya <sup>/c</sup> , Anambra, Nigeria <sup>/a</sup>
-local valuation, central collection	Netherlands	Tunisia; Lagos, Nigeria <sup>/a</sup>

<sup>/a</sup> state or provincial level performs central function

<sup>/b</sup> larger cities only

<sup>/c</sup> smaller cities only

**Central policy, local administration.** Here, local governments are responsible for the administrative aspects of property taxation--discovery, valuation, billing and collection--while central government retains control over policy. This arrangement exists de jure in Korea and in large cities in Colombia, and de facto (given central government rate ceilings and rights of prior review) in India, the Philippines, and large cities in Kenya.

Divided administration. In this last group, responsibility for the administrative aspects of property taxation are divided between central and local government. In one variant, the central government is responsible for discovery and valuation and local governments are responsible for billing and collection. This arrangement prevails in the U.K., Germany, and in smaller cities in Colombia and Kenya. In Anambra State, Nigeria, the state government performs the central valuation role. The reverse administrative arrangement is also used. In the Netherlands and Tunisia, local governments are responsible for valuation, and the central government for billing and collection. The assignment of policy-making power cuts across the two variants. In all three industrial countries cited above, local governments are able to fix tax rates and exemption policies. In the four developing country cases, this power is restricted by the central government.

#### Reallocating Administrative Responsibilities

Whether the administrative aspects of property taxation are better performed by central or local government is a matter of debate. The choice can be characterized as a tradeoff between the incompetence of local government and the indifference of central authorities.

Local governments, it is argued, are incapable of administering the property tax accurately and honestly. According to this view, valuation is too technically demanding for local governments, given the limited skills available to them. Local vulnerability to political pressure precludes objective valuation and vigorous collection enforcement. Only central governments enjoy sufficient economies of scale to develop technical expertise in valuation and only central

governments are sufficiently insulated from local political pressure to value properties with technical competence and to enforce collection with impartiality.

Experience with central administration has not been an unqualified success, however. Because urban property taxes yield no direct revenue to central governments (and constitute only a small proportion of the resources of the public sector as a whole) central governments are often indifferent to the quality of the tax's administration. Staffing allocations to property valuation are inadequate. Collection enforcement receives a lower priority than that assigned to the central government's own taxes. Central governments have also not proven immune to political influences on the tax's administration. In light of this experience, advocates of local administration make the following argument: that only the jurisdiction that ultimately receives the revenue has a sufficient vested interest in the tax's administration to ensure that the job is done well. According to this view, both valuation and collection should be decentralized to the local level.

In practice, both centralized and decentralized administration have succeeded in some instances and failed in others. The assignment of this responsibility, by itself, does not appear to guarantee either outcome.

Efforts to reform the institutional arrangements for property taxation must address the respective weaknesses of whichever arrangement is ultimately selected. In this respect, the incompetence of local government appears to be more easily mitigated than the indifference of central authorities. If administration is decentralized, the technical

weakness of local government can be addressed through centrally-managed technical assistance programs. (Two such programs are described in Section III.) Specific technical problems (such as the calculation of unit cost tables and inflation adjustment factors or the valuation of unique structures such as factories) can be assigned to a technical agency of the central government. The political pressures on local assessors and treasurers can be mitigated through civil service protection. (The Philippines has taken the further step of making the Ministry of Finance responsible for recruiting, promoting and disciplining local assessors and treasurers.) Central or regional boards can be established to review the technical merits of local government valuations.

#### Reassigning Control over Tax Policy

There is a strong efficiency argument for permitting local governments to control the instruments of tax policy, particularly tax rates (and assessment ratios, inflation adjustments, and the scheduling of revaluations, to the extent these also determine the effective level of property taxation). Where local governments control tax rates, they are in a position to adjust the level of municipal expenditure to match the preferences of local taxpayers. A close match between local service levels and taxpayer preferences implies an optimal allocation of resources between the production of municipal services and all other production.

Taxpayer preferences for municipal services are likely to vary between jurisdictions, reflecting differences in average income levels, tastes, and service production costs. Uniform national tax rates are

therefore likely to result in an overallocation of resources to municipal services in some jurisdictions, and an underallocation of resources to municipal services in others. While central governments could, in principle, vary the tax rates they impose in different jurisdictions to match the preferences of local taxpayers, in practice they are in a poor position to do so. Local governments would appear to have a clear comparative advantage in discerning the preferences of their constituencies.

Local control over tax rates is, however, largely limited to industrial countries. In most developing countries, central governments control local tax rates, either directly or in the form of ceiling on maximum rates. In rare cases, this control may be justified by central government's need to control the instruments of macroeconomic policy. Given the property tax's small role in public sector resource mobilization<sup>15/</sup> this argument is not persuasive.

### III. TAX REFORM PROGRAMS: DESIGN AND IMPLEMENTATION

Efforts to improve property taxation rarely begin with a tabula rasa. Almost all market-economy countries have some form of property taxation already in place. The job of reform is to improve the performance of an existing system. The process of reform must begin with a careful diagnosis of the weaknesses of the present system. Beyond this, specifics will vary. Experience with property tax reform in LDCs nevertheless provides some broad guidelines for the process.

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<sup>15/</sup> Based on data from 55 developing countries, the IMF reports that recurrent taxes on immovable property constitute an average of 1.3 percent of total public sector taxation.

### A. Quick Fixes

The yield of the urban property tax is the combined product of a sequence of four factors: the completeness of the fiscal cadastre, the level and accuracy of valuations, the tax rate and exemption schedule, and the efficiency of collections. Efforts to reform a deteriorated property tax system often start at the beginning with a new fiscal cadastre. Unless equal effort is devoted to improving collection efficiency and increasing tax rates, much of the effort devoted to fiscal cadastre is wasted however. Newly discovered, or newly revalued properties yield no revenue if collections are not enforced. They yield twice as much revenue if the tax rate is doubled.

This suggests, as a general rule, that the search for targets of reform should begin at the end of the taxation process--at collection--and work backward. This results not only in more efficient use of effort but a considerably earlier increase in revenues.

Collection efficiency is a good first target. Sorting payment records to identify major delinquents, combined with conspicuous enforcement of penalties, can produce a major one-time increase in collections on arrears. Introduction of financial reporting systems for collections, and sustained commitment to enforcement can result in a sustained increase in collection efficiency. An increase in tax rate will increase liabilities in the next tax year, and is a good second target for reform.

These solutions, in effect, increase collections from properties already on the tax rolls increasing liabilities in proportion to existing valuations. Where the fiscal cadastre is reasonably complete, and the valuations still valid in relative terms, these

measures are tolerable. Where these conditions do not exist, simple increases in rate and collection efficiency will exaggerate whatever inequities were already in existence. In this case, more fundamental reform is necessary.

## B. Fundamental Reform

Achieving fundamental reform on a national scale is difficult, particularly where property tax administration is decentralized. The experience of two such efforts, in the Philippines and Brazil, provide lessons for other countries facing similar problems.

### 1. Philippines Real Property Tax Administration (RPTA) Project

The Philippines is a lower-middle income country, with a population of roughly 54 million. The government is organized as a unitary state, with the local tier of government comprised of 61 city governments and 1550 municipalities (the latter incorporating small towns and their surrounding rural hinterland). The property tax is one of two tax bases assigned to local government, and is supplemented by intergovernmental recurrent transfers.

Responsibility for the discovery and valuation of property rests with the local assessor. The local treasurer is responsible for billing and collection. The central government, however, retains the authority to fix assessment ratios and maximum tax rates, to set exemption policies, and to determine the date on which general property revaluations become effective.

Prior to the RPTA project, the property discovery process was based upon owner declarations. Property owners were required to submit periodic statements to local assessors, declaring the properties under their ownership and providing basic data on each property's physical characteristics. Valuations were calculated using a mass appraisal technique: standard unit cost factors, calculated by the assessor, were applied to the descriptive data supplied by property owners to yield an estimate of each property's value. This procedure permitted two forms of evasion: property owners could either understate the characteristics of their properties, or they could neglect to declare their properties entirely.

The RPTA project was designed to eliminate these opportunities. It intended to do so by fundamentally changing the procedure used to discover property, from one based on owner declarations to one based on field-verified inventories of properties, a procedure termed "tax mapping".

This conversion of systems was accomplished by special tax mapping teams, recruited and led by the local assessor. The work of each team comprised three phases:

- the prefield tie-up, where the RPTA team compiled a working parcellary map of the jurisdiction, drawing on whatever maps and cadastral records were available, and then matched owner declarations to mapped parcels as far as data permitted;



- field work, where undeclared parcels were identified and mapped, and property characteristics were noted for purposes of valuation; and
- post field work, where a final parcellary map was prepared; valuations were calculated, and an assessment roll was prepared and sent to the treasurer's department for billing and collection.

Central administrative support to the project was provided by the Ministry of Finance. Initially, this support was largely financial. RPTA provided partial funding for contractual and casual labor; vehicles, equipment, and supplies; and incremental staff travel costs. As MOF gained experience with the program, its capacity to provide technical backup increased, although staffing constraints remained a problem.

In terms of its specific objectives, RPTA was a near-success. The project aimed to complete the tax mapping process in 800 local jurisdictions over a five year period. It achieved 70 percent of that target. While the number of undeclared properties turned out to be smaller than expected (increasing total assessed valuation by only seven percent), the revaluation of properties using on field-verified data increased assessments by an average of 28 percent.

But RPTA's impact on actual tax revenues was negligible. The absolute level of tax liabilities remained extremely low (increasing by an average of US\$2.68 per parcel). Actual collections increased by only 1.1 percent.

This is in large part because the project's scope was too narrow. While reforming the system of property discovery, RPTA did not address other problems in the tax. The absolute level of tax liabilities remained low in part because the project did not address widespread underestimation of unit costs. RPTA also declined to confront the central government policies which severely constrain yields: It is estimated that centrally-decreed postponements of the most recent general revaluation, combined with limits on tax rates and assessment ratios, reduce the effective rate of property taxation in the Philippines to less than 0.2 percent. Collections remained stagnant because RPTA did not address problems in collection administration and enforcement. In many jurisdictions, declines in collection efficiency more than offset increases in assessments.

## 2. Brazil's Project Ciata<sup>16/</sup>

Brazil is a middle income country, with a population of 130 million (1985). The government structure is federal, with the national territory divided among 22 states. States are further divided into municipios. Totalling about 4000, the municipios are the only form of local government in Brazil, and incorporate both urban and rural areas.

Like the Philippines, Brazil assigns two tax bases to municipal government, one of which is a tax on urban property. Local tax revenues are supplemented by intergovernmental recurrent transfers.

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<sup>16/</sup> Convenio de Incentivo ao Aperfeicoamento Tecnico-Administrativo das Municipalidades.

Responsibility for all aspects of property tax administration--discovery, valuation, billing and collection--lies with municipal officials. Brazilian municipalities also have substantial autonomy over property tax policy. While the central government defines the tax base, local officials have the authority to fix tax rates and exemption policies, and to schedule revaluations and inflation adjustments without prior approval by higher levels of government.

Unlike the Philippines, Brazil had a workable framework for property tax administration before the CIATA program began. Discovery was based on field-verified inventories, with properties recorded on tax maps for purposes of permanent identification. Values were calculated on the basis of objective physical characteristics and standard unit cost factors. The legal framework for billing and collection defined liability broadly and provided ample means of collection enforcement. The problem, as perceived by the Brazilian government, lay in the execution of these procedures. Particularly in small jurisdictions, tax maps and property information were out of date; unit cost factors were inaccurate; and billing and collection procedures, haphazard.

The government's solution--paralleling that of the Philippines--was to address the problem through a short term injection of manpower, supplies, and equipment. CIATA's objective, as defined by Government, was to use these inputs to produce, in each participating municipality, a complete and up-to-date set of all the documents required to administer the property tax. The CIATA "product" encompassed:

- an updated municipal tax code;
- an updated tax map, incorporating recently urbanized areas;
- a new set of property records, containing updated information on the characteristics of each property in the jurisdiction;
- new unit cost tables, permitting the revised property characteristics data to be converted to estimates of value at current market prices;
- a new assessment roll, specifying the assessed value of each property and its current tax liability;
- a complete set of tax bills, incorporating the new assessments; and
- a ledger for recording payments against outstanding liabilities.<sup>17/</sup>

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<sup>17/</sup> CIATA also offers several computerization options. Prior to the widespread availability of microcomputers in Brazil, CIATA would maintain municipalities' property records at its regional headquarters, updating them on the basis of data supplied by the municipal assessor, and providing municipalities with a set of printed tax bills each year, (incorporating updated property data and any changes in tax rate). As the use of microcomputers has expanded, CIATA now supports decentralized records maintenance and billing, by assisting local government to install systems on site. The use of microcomputers also permits collections to be recorded and monitored electronically (a process that was not possible under the previous centralized system, due to the difficulty of sending collections data to CIATA's regional headquarters.) The use of microcomputers supercedes the last three products of the standard CIATA package referred to in the text.

CIATA's central administrative agency, SERPRO, played an active role in project execution, in contrast to the limited participation of central administration in the Philippines case. Each municipal subproject was led by a SERPRO staff, assigned full-time to the subproject and remaining on-site throughout subproject execution. Standardized "packages" of technical materials (model tax codes, procedures manuals for tax mapping and valuation, specific guidelines for subproject execution) were developed early in the project and widely used.

CIATA's impact on tax revenues was immediate and dramatic; again, a contrast to the Philippines' experience. In percentage terms, property tax revenues increased by an average of 95 percent in real terms in the first year following subproject implantation. Much of this increase was due to the incorporation of recently urbanized land and recent construction onto the tax rolls. Collection efficiency also improved somewhat.<sup>18/</sup> Absolute levels of tax liability per property remained low, however, as municipal officials used their autonomy over property tax policy to reduce nominal tax rates. Evidence from the earliest CIATA projects suggests that its impact on revenues is also short-lived. Nominal tax collections in CIATA municipalities have increased more slowly than in similar non-CIATA municipalities. Officials of the program report that they have received requests to repeat the CIATA process in some of the earliest participating municipalities.

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<sup>18/</sup> Part of this improvement may, however, reflect a one-time receipt of payment on arrears.

### 3. Design and Implementation Lessons

As models for the design and implementation of property tax reform programs, the experience of these two programs yields several lessons.

Reforms should be based on a comprehensive view of the problem. RPTA's limited impact on tax revenues largely reflects its exclusive concentration on the discovery phase of property tax administration, and its neglect of central government policies which constrain the absolute level of property tax liabilities. CIATA's comparative success in increasing revenues is partly due its comprehensive coverage of tax administration (and the absence of central government constraints on yields).

Administrative reform should aim at permanent procedural change, particularly in maintenance systems. CIATA's short-lived impact in part reflects a failure to implant a successful system for incorporating changes in property characteristics into the fiscal cadastre.

"Packaged" technical materials and on-site technical support speed implementation. The rate of subproject completion under CIATA far exceeded that of RPTA.<sup>19/</sup> This appears to reflect CIATA's early provision of standardized forms, codes and procedures manuals, and the presence of an experienced project leader on site throughout CIATA subproject implementation.

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<sup>19/</sup> Details of the implementation experience are provided in References 4 and 5.

The need for selectivity in the choice of participating jurisdictions. RPTA's initial delays were also attributable to its open enrollment policy. The absence in some localities of adequate base conditions (such as a sufficient number of taxable properties to justify project mobilization costs) and disputes over local obligations to provide in-kind support (office space, clerical personnel) delayed many RPTA subprojects. CIATA's more elaborate selection process precluded most of such delays. But CIATA's own short-lived impact is itself the result of a lack of selectivity. The failure of municipalities to sustain the impact of CIATA subprojects is as much due to lack of political will as to an absence of technical procedures. While political commitment is difficult to measure a priori, a greater effort to distinguish those municipalities where the conditions for sustained tax effort exists might have produced a longer lasting result.

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